

Department of Chemistry & Physics

CHEMISTRY 1030: GENERAL CHEMISTRY I

CHEM 1030. GENERAL CHEMISTRY. (3-3-0). Atomic and molecular structure; chemical bonding; properties of gases, liquids and solids; chemistry of some non-metals. For students who plan to take 1040 and 2000- or 3000-level chemistry courses. Prerequisite: placement in Mathematics 1020. (May not receive credit for both Chemistry 1030 and Science 1010).

Textbook: Chemistry: The Central Science, Vol. 1
Custom Edition for CHEM 1030 w/Mastering Chemistry
Pearson 11th edition by Brown

Topics:

Introduction: Matter and Measurement	Chap. 1
Atoms, Molecules, and Ions	Chap. 2
Stoichiometry	Chap. 3
Aqueous Reactions	Chap. 4
Electronic Structure of Atoms	Chap. 6
Periodic Properties of the Elements	Chap. 7
Basic Concepts of Chemical Bonding	Chap. 8
Molecular Geometry	Chap. 9: 1-4, 6
Gases	Chap. 10
Intermolecular Forces	Chap. 11: 1-6, 8
Properties of Solutions	Chap. 13: 1-5

Course Goals:

This course is intended:

1. To introduce the student to basic concepts and factual information relating to chemistry.
2. To prepare the student for further studies in chemistry.
3. To provide the necessary information so that the student can begin to think in terms of structure.
4. To develop mathematical abilities of the student particularly as applied to solving word problems.
5. To develop the synthetic abilities of the students particularly as applied to problem solving.

Course Objectives:

The student who successfully completes this course should be able:

1. To provide appropriate names, formulas and structures for atoms, ions and molecules.
2. To predict simple chemical and physical behavior.
3. To use general chemical concepts to explain chemical behavior.
4. To solve chemical problems including stoichiometric.
5. To demonstrate a qualitative awareness of concepts for which advanced mathematic reasoning is required.

Note: It is the policy of NSU to accommodate students with disabilities, pursuant to federal law, state law, and the University's commitment to equal educational opportunities. Any student with a disability who needs accommodations, for example in seating placement or in arrangements for examinations, should inform the instructor at the beginning of the course. Students with disabilities are encouraged to contact Disability Services, which is located in Kyser Hall, Room 237, telephone 357-6950 or (TTD) 357-4393 or disability@nsula.edu.